A NEW GENUS OF ORIBATID MITE
(CRYPTOSTIGMATA: ORIBATELLIDAE)

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ABSTRACT—**Ferolocella**, n. gen., is proposed for *Oribatella carolina* Banks, 1947. This genus departs from *Oribatella* in having greatly reduced mesial dentes and the posterior reflection of the translamella to form a box. Other features which differ from those characteristic for *Oribatella* are discussed.

The family Oribatellidae as established by Jacot (1925) was partially reviewed by Woolley (1958) and this review completed by Grabowski (1967). During this investigation, I found a specimen identified by Banks (1947) as belonging to the type genus *Oribatella*. It was designated *Oribatella carolina* Banks, 1947. Detailed study of the specimens has shown that this oribatid does not fit the characteristics set forth for the genus, although its inclusion in the Oribatellidae is valid.

Ferolocella, n. gen.

Type-species: *Oribatella carolina* Banks, 1947.

The translamella in this oribatid is reflected posteriorly under the dorsosejugal suture to form a box or cell-like structure. Certain modifications of the lamellae also set this representative apart from *Oribatella*.

The name is derived from the Latin *feros*, to bear or carry, and *locella*, a tiny box or cell.

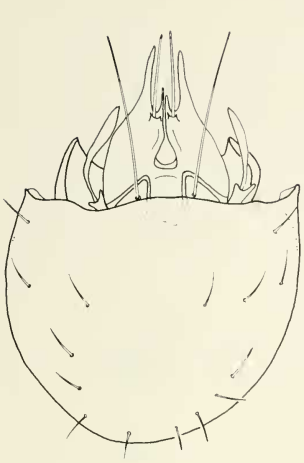
Ferolocella carolina (Banks), n. comb.
(Figs. 1–6)

Oribatella carolina Banks, 1947, Psyche 54(2):112.

Lamellar cusps broad, distinctly striated; lateral dentes pointed, mesal dentes greatly reduced and pointed; auxiliary dens ("aux," fig. 3) arises laterally to mesal dens; lamellar cleft triangular posteriorly; lamellar hairs medium length, thin, barbed, originating between mesal and auxiliary dentes; interlamellar hairs thin, pectinate, extending just beyond tips of lateral dentes; lateral arms of translamella reflected posteriorly and extending underneath dorsosejugal suture forming prominent cell-like configuration (figs. 2, 3); pseudostigmatic organ long, fusiform, barbed.

Hysterosoma broader than long, dorsum finely punctate; pteromorphs short, shallowly decurved, with finely striated anterolateral borders; eight pairs of short, simple setae, no porose areas (fig. 1).

Camerostome (fig. 2) rectangular in outline with curved posterolateral margins; one pair of mental setae, rutellar setae located in posterolateral corners (fig. 4);



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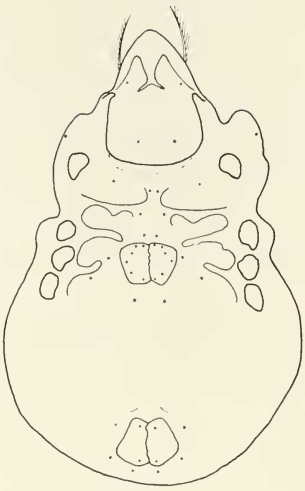

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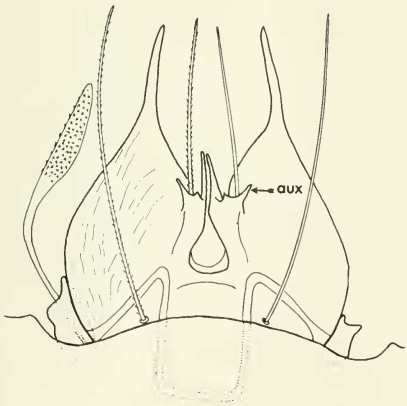

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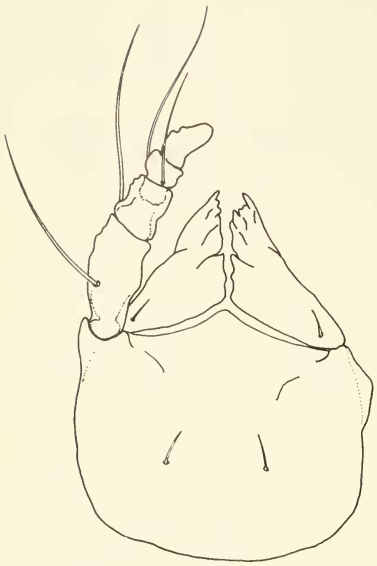
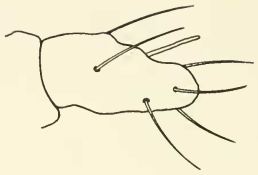
Figs. 1–3, *Ferolocella carolina* (Banks): 1, dorsal view, legs omitted, stipled area indicates fine punctations on dorsum of hysterosoma; 2, ventral view, legs omitted, dots indicate setal insertions; 3, detail of lamellar and translamella morphology (aux = auxiliary mesal dens).





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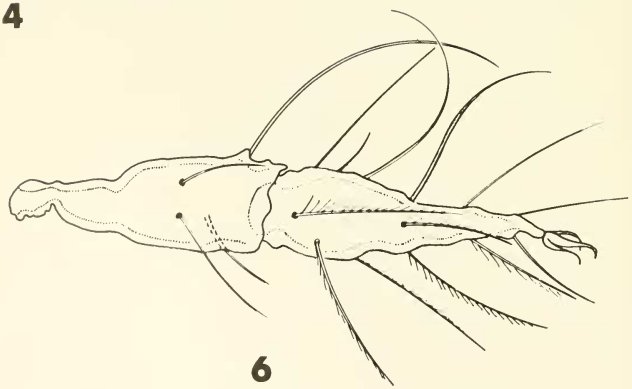

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Figs. 4–6, *Ferolocella carolina* (Banks): 4, detail of infracapitulum, palp segments and their setation, and placement of mental and rutellar setae; 5, greatly enlarged view of palp tarsus; 6, tibia and tarsus, leg I, showing placement and morphology of setae.

adoral setae not visible on any specimens observed; chelicerae chelate; setation of pedipalp as given in fig. 4; palp tarsus with seven setae, solenidion placed anteriorly (fig. 5).

Ventral surface of hysterosoma finely punctate; placement of coxisternal setae as given in fig. 2; coxisternal setae 2b-c not evident in any specimens examined; genital plate with six pairs of short, simple setae (fig. 2): g_1 and g_2 far anterior on leading edge of each cover, g_3 and g_4 anterior and in a line running obliquely laterad from g_2, g_5 and g_6 posterior and in a line running obliquely mesad towards opening; one pair of short aggenital setae; anal plate with two pairs of setae, three pairs of adanal setae laterad and posterior to plate, fissure "iad" just anterior to each cover (fig. 2).

All legs tridactylous, lateral tynes very thin; subtarsals, subinguinals, and inguinals of tarsus one all distinctly barbed on one side, famulus setose and elongate (fig. 6).

Color, pale yellow; length, 275.5 μ, width, 190.5 μ. Specimens supplied by Dr. Louis G. Metz, Research Triangle Park, North Carolina. I collected four specimens five miles west of Huntington, Wayne County, West Virginia, 5 June 1967, in damp moss on a rock overhanging a seepage area, and in moist oak litter mixed with topsoil.

This species is not a valid member of the genus *Oribatella* for the following reasons: (1) the mesal dentes on each lamellar cusp are greatly reduced and spinous, (2) an auxiliary mesal dens is present, and (3) the translamella is reflected posteriorly to form a box configuration. Members of the genus *Oribatella* possess lamellar cusps which are deeply bifid, dentes which may be slightly subequal but neither mesal nor lateral dentes are greatly reduced in size, and a translamella that extends laterally and posteriorly from the lamellar cleft to the pseudostigmata without becoming reflected upon itself.

The apparent absence of adoral setae and coxisternal setae 2b-c cannot be explained at this time owing to lack of information concerning the developmental stages in this family. Reports concerning the presence or absence of porose areas in this family have been inconsistent throughout the literature (Grabowski, 1967). I consider the lateral displacement of the rutellar setae rather unusual when compared to the more central orientation of these setae in other members of the family.

References

Banks, N. 1947. On some Acarina from North Carolina. Psyche 54(2):110–141.

Grabowski, W. B. 1967. A review of the family Oribatellidae (Acari: Cryptostigmata). Ph.D. Thesis, Colorado State University. 131 p. (Diss. Abstr. #67-13,196).

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